DOCUMENT RESUME

ED 048 782 FL 002 133

AUTHOR	Graham, Robert H.; Hansen, W. Lee
TITLE	Footnotes and Foreign Language Requirements.
INSTITUTION	Wisconsin Univ., Madison.
PUB DATE	Aug 68
NOTE	36p.; Workshop on Human Resources Working Paper No. 7
EDRS PRICE	EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS	Colleges, *Cost Effectiveness, *Degree Requirements, *Doctoral Degrees, Expenditure Per Student, *Graduate Study, Graduate Surveys, *Language Skills, Modern Languages, Occupational Surveys, School Surveys, Second Language Learning, Student Costs, Universities

ABSTRACT

This study investigates the extent to which graduate students, in writing their Ph.D. dissertations, actually do make use of the language skills which they have been required to obtain. A comparison of the extent of utilization of foreign language skills by the doctoral candidates with that by faculty members at the same institution is also developed. Estimates of resource costs, in dollar terms, incurred by graduate students in fulfilling the requirement are illustrated through frequent use of tables. The report, based on the analysis of some 225 dissertations written in 15 departments, suggests that there is no justification for a uniform requirement and that any increase in requirements would result in an increase of costs without affecting benefits. (RL)

ED048782

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Footnotes and Foreign Language Requirements

by

Robert H. Graham and W. Lee Hansen

Workshop on Human Resources

Working Paper No. 7

August 1968

FL 002 133

University of Wisconsin

Footnotes and Foreign Language Requirements

Robert H. Graham and W. Lee Hansen*

I. Introduction

In most American universities, graduate students must satisfy a foreign language requirement prior to admission to Ph. D. candidacy. A major premise upon which the requirement rests is that a knowledge of foreign languages is necessary to enable the scholar to undertake research, both at the dissertation level and subsequently. This premise then serves as a justification for the demand that students demonstrate some competence in reading at least one and frequently two foreign languages which will presumably be related to their work on the dissertation. In this paper we investigate the extent to which students, in writing their dissertations, actually do make use of the language skills which they have been required to obtain. The results of the investigation should enable one to determine whether students are capable of undertaking scholarly work without taking advantage of their foreign language capabilities.

Many people have questioned the premise underlying the Ph. D. foreign language requirement, and, indeed, some quantitative evidence has been mobilized to test its correctness; the evidence indicates that most graduate students (and professors) rarely if ever use their foreign

---

*Graduate student, Department of Educational Policy Studies, and Professor of Economics and of Educational Policy Studies, respectively.
The authors acknowledge gratefully the assistance of Carol Graham and Sharon Schlough in collecting the data and typing the manuscript.

language skills even though they may be doing substantial amounts of research.[1] In particular, the premise is challenged by a study at Duke University where it was found that the use of foreign language skills by Ph. D. candidates was, on the whole, slight.[2] But we shall try to carry the analysis a step beyond these studies by comparing the extent of utilization of foreign language skills by doctoral candidates with that by faculty members at the same institution. In addition, we present our estimates of the resource costs, in dollar terms, incurred by graduate students in fulfilling the requirement.

---

[1]See, for example: Betts, G. H., and Kent, R. A., Foreign Language Equipment of 2,325 Doctors of Philosophy (Bloomington, Illinois: Public School Publishing Company, 1929); Saul Rosenzweig, et. al., "Operation Babel: A Survey of the Effectiveness of the Foreign Language Requirements for the Ph. D. Degree in Psychology," American Psychologist, XVII (May, 1962), pp. 237-243; Eldon Smith, "Foreign Language Requirements in Ph. D. Programs in Agricultural Economics," Journal of Farm Economics, XLVII (August, 1965), pp. 529-541.

[2]Henry Weitz, Robert Ballantyne, and Robert Colver, "Foreign-Language Fluency, The Ornament of a Scholar," Journal of Higher Education, XXXIV (November, 1963), pp. 443-449. A study currently underway at Berkeley will surely shed more light on the question; a large sample of doctoral students in twelve fields at ten top-ranked universities is being asked a battery of questions, including, "How much have you actually used a required foreign language in your graduate program?" (Leland Medsker, Questionnaire for Doctoral Students, Center for Research and Development in Higher Education, University of California, Berkeley, 1967.)

In "The Foreign Language Imbroglio in Graduate Education"[3] we reported the results of our survey of the University of Wisconsin faculty and presented an analysis and critique of the language requirement. Subsequent to that survey we examined the bibliographic references in a sample of doctoral dissertations in order to determine the degree of student utilization of foreign language capabilities. In carrying out this latter study, two important independent variables could be controlled, namely the type of language requirement and the present activity of members of the sample. That is, everyone in the sample had met the same language requirement -- a reading knowledge of two foreign languages, one of these being French, German, or Russian[4] -- and everyone was working on the same type of project -- writing a dissertation. The faculty sample, on the other hand, had passed a variety of language requirements and consisted of assistant to full professors with diverse professional interests. Taking the evidence then from two groups of scholars, the "apprentices" and the "practitioners," we can test the premise, or hypothesis, that a knowledge of foreign languages is necessary to enable the scholar to undertake research. In Part II we present our expectations and sketch out what the possible results might imply; the findings are reported in Part III, followed by a faculty-student comparison in Part IV; Part V consists of an interpretation of

---

[3] W. Lee Hansen and Robert H. Graham, "The Foreign Language Imbroglio in Graduate Education," Department of Economics, University of Wisconsin, Madison, 1968, (Mimeographed).

[4] All Ph. D. recipients in 1966 had completed the two-language requirement, although in May 1966 the Graduate School requirement was reduced to, in effect, a single language.

the results, in the course of which reference is made to the evidence reported in similar studies and a cost-benefit analysis of the requirement is presented; concluding comments are found in Part VI. To assist interested readers, we append a "Bibliography on the Graduate Foreign Language Requirement.".

II. Expectations and Implications

Our a priori expectations about the usefulness of foreign language skills in dissertation research are somewhat difficult to set forth in light of our knowledge that there is likely to be a disparity between theory and practice, i.e., between what the requirement is supposed to do and what in fact it does do. Based upon the premise underlying the Ph. D. language requirement, we would expect to find a substantial foreign language input into most dissertations.[5] But what do we mean by "substantial;" should the proportion of foreign language references to total references be nearer to, say, fifty percent or five percent? What is the actual percentage of references, and how many writers account for this foreign language usage?

---

[5]Not only is there an abundance of historial literature relevant to most dissertation topics, but there is undoubtedly a reservoir of current research that deserves mention, if not further elaboration, in the dissertation. It is difficult to know exactly what this implies in quantitative terms for the use of foreign languages in dissertation research, as measured by the number of references to foreign literature included in the completed dissertation. Given the substantial time and effort devoted by the student to acquiring some mastery of foreign languages, we might expect to find on average the number of references exceeding zero. More likely, we could very well expect on average at least ten to twenty percent of all references to be to foreign language literature, for some of the reasons cited earlier.

It is important to explore the implications of the range of possible findings before we examine any of the empirical results. Let us assume that we discover virtually no evidence of language use. How would we interpret such a finding? There are several possibilities: (1) there does not exist sufficient quantity or quality of foreign literature to have warranted any footnote references; (2) students really do not know languages well enough to read and therefore reference any foreign literature; and (3) even if the literature does exist and the students are capable of reading it, Ph. D. candidates know they can get by without foreign references because they realize that the faculty is not concerned about the substance of its own requirements. Certainly there will be variations in the importance of these factors from one division of the University to another and among departments within these divisions. Nevertheless, to the extent that we find little use of languages, this would suggest that the Ph. D. language requirement must be reconsidered or that the degree itself does not signify all that it is alleged to.

But what if we find a substantial number of foreign language footnotes? Ideally we would like to know something about the "quality" of the references; was the footnoted literature quite important to the author's research or was it trivial, cited largely for its "prestige value"?[6] If the citations are genuine, important, and numerous, the

---

[6]By this we mean that some foreign language citations are very central to the dissertation whereas others are somewhat incidental. And, of course, there may be still others which are "phoney" in that they are included solely for decorative purposes. From a survey of dissertations it is impossible to distinguish among these classes of footnotes without a great deal of effort. Hence we shall be forced to assume that foreign language footnotes reflect the dissertation writer's direct contact with foreign material. While this assumption may overstate the case for some individuals and understate the case for others, it does not seem to be unreasonable.

central question still remains: "Are students acquiring useful language skills as a result of the requirement?"

III. The Findings

There are several questions of particular interest to us: In our sample of dissertations,[7] what fraction of all references is to foreign literature? Are foreign language materials used more frequently in some disciplines than in others? What proportion of dissertation authors make significant use of this literature? Our results are presented largely on a divisional basis; while the variations among departments are quite interesting, we present that information in the Appendix to avoid cumbersome tables in the text.

---

[7]The most recent sample which had satisfied the same language requirement was that group of 562 students whose dissertations were accepted by the Graduate School in 1966. While it would have been desirable to examine dissertations written by students in the nineteen departments whose faculty we had surveyed, which, incidentally, awarded 265, or 47 percent, of these doctorates, it was impossible to study all nineteen as some departments awarded too few doctorates while others allowed a referencing style which is virtually opaque to the outsider. (We omitted these departments -- Nuclear Engineering, Philosophy, and Art History -- which granted less than four Ph. D. degrees in 1966. Dissertations in Chemistry and Physics had to be ignored due to the difficulty of interpreting their bibliographies; the scientific notation used to identify sources was so cryptic that one would have had to seek out most of the references in their original publications, many of which are multilingual, to determine what languages they were written in. We were not up to this arduous task.

The final sample then consisted of 225 dissertations written in fifteen departments (fourteen being identical with departments covered in the faculty survey, plus the Department of English.) We selected a subsample of 147, or 65 percent, for analysis. Since our method of selection of dissertations introduced no appreciable bias to the study, we believe that if the entire sample of 225 were studied no significantly different results would be obtained. (We examined all dissertations from departments granting four to ten Ph. D. degrees and one-half to three-quarters of those from departments granting more than ten doctorates. Within each of the latter class of departments, we studied the first of each pair or the first three of every four dissertations found in the library.)

The principal finding which emerges is that only 6.5 percent of all Ph. D. dissertation references are to foreign language sources, as shown by Table 1. The divisions display considerable variation in this regard; dissertations in the physical sciences (biological sciences are also included) show the highest proportion of foreign language sources, ten percent, while for writers in the humanities and the social sciences the figures are eight and three percent, respectively. However, in terms of the absolute amount of foreign language material cited in the dissertations, the humanists surpass the other groups, averaging about twelve foreign language references (out of an average of about 140 references per dissertation) compared with the physical scientists' six (out of 63) and the social scientists' two (out of 85).[8]

Thus we see that only a small fraction of references is to foreign literature and that the physical scientists and humanists make greater use of this literature than the social scientists. Moreover, the frequency of use of different languages varies considerably with the divisions.

---

[8]It is impossible to determine the actual quantity, i.e., number of pages, of foreign language material read. One knows neither the length of the articles, books, and unpublished works cited nor how much of each reference the Ph. D. candidate actually read. But since, for example, the humanists cited an average of about five foreign language books versus about one each for both the social and physical scientists, about five foreign language articles versus about five for the physical scientists and one for the social scientists, and about two unpublished sources versus none for either physical or social scientists, it would seem that the humanists read a much greater volume of foreign literature than the other students, on the whole.

TABLE 1

Percentage Distribution of Dissertation References by Language, and Average Number of Foreign Language References for University and Major Divisions

Language of References	University Divisions: Physical Sciences	Social Sciences	Humanities	All University Total
Foreign Languages:				
French	3.1	0.8	0.9	1.2
German	6.3	0.5	0.2	1.3
Russian	0.0	0.0	2.5	1.3
Spanish	0.0	1.4	2.4	1.7
Other	0.3	0.1	1.8	1.0
Sub-Total	9.7	2.8	7.9	6.5
English	90.3	97.2	92.1	93.5
Total References: Percent	100	100	100	100
Number of Dissertations	36	57	54	147
Average Number of Foreign Language References	6	2	11	7

French, German, Russian and Spanish are used in about equal (and small) amounts; between one and two percent of all references were in each of these languages. But they are not used in equal amounts by students across the different divisions. While the foreign languages read by physical scientists are almost exclusively French and German, the social scientists prefer Spanish and the humanists read more of both Spanish and Russian material than either French or German.

Much greater variation is, of course, noted in the individual departments. For example, we find a range of from twenty percent foreign language references in Zoology to zero percent in Speech, as shown in Appendix Table A. And even in a single department we find enormous variation: in the history department, those students focusing on United States history used no foreign language references while those writing on topics other than U. S. history found fifty percent of their sources in foreign languages, the most frequent being Russian.

While these divisional and departmental differences are of interest, the variations among individuals are most important. Hence, we move to a discussion of the distribution of students by demonstrated use of foreign languages. As indicated by Table 2, sixty percent of the dissertation authors did not employ a single foreign language reference. Only ten percent referred to more than ten foreign language sources, and the remaining thirty percent fell between the two extremes.

Again we find important differences among the divisions. While only about one out of four physical scientists failed to cite a single foreign language source, two out of three humanists and four out of five social scientists had no foreign language references. Perhaps more

realistic than the user/non-user dichotomy would be a distinction between heavy or substantial users and light or non-users; it is hard to see how a person citing only one or two foreign sources in his dissertation (sources which may in fact have been read in translation), could be considered in the same class with the person who cites a considerable number of foreign sources. If we agree that using, say, three or more foreign language sources represents a "substantial" use of language skills -- and this is a very generous rendering of "substantial" -- then we observe that one-fourth of the students were substantial users. By divisions, fifty-three percent of the physical scientists made substantial use of foreign material, in contrast to twenty-two percent in the humanities and only ten percent in the social sciences. And in five of the total of fifteen departments no student made any appreciable use of foreign literature, as shown in Appendix Table B.

TABLE 2

Percentage Distribution of Dissertation Authors by Number of Foreign Language References

Number of Foreign Language References	University Divisions			All University Total
	Physical Sciences	Social Sciences	Humanities	
0	28	79	63	60
1-2	19	11	15	14
3-10	42	5	9	16
11 and Over	11	5	13	10
Total References: Percent	100	100	100	100
Number of Dissertations	36	57	54	147

IV. Comparing Students With Faculty

Several revealing comparisons between students and faculty can be made regarding foreign language use in scholarship, despite the heterogeneity of the data collected in the two samples. While we admit that our measures are only approximate, these comparisons seem worthwhile nevertheless.

It appears, from Table 3, that while the faculty makes somewhat greater use of its language skills, the differences between the two samples are not very great. The overwhelming majority of both groups -- 74 percent of the students and 65 percent of the faculty -- report little or no use of their foreign language reading skills. By division, more physical scientists appear to make at least some use of these skills than their colleagues in the humanities or the social sciences, with the latter coming out a poor third.

A more direct comparison is made in Table 4 where we show the median number of foreign language references cited by faculty and students in their recent written work, which consists of all published writings by the faculty and of dissertations by the students. From this table it becomes even clearer that the students imitate their faculty colleagues in their use of foreign languages and that this use is, on the whole, rather slight. On the average we find that no foreign language sources are cited.

TABLE 3

Language Use: Doctoral Students vs. Faculty[a, b]

Amount of Reading in Foreign Language	Percent of Doctoral Students and of Faculty							
	University Divisions						All University Total	
	Physical Sciences		Social Sciences		Humanities			
	Students	Faculty	Students	Faculty	Students	Faculty	Students	Faculty
None	28	28	79	66	63	45	60	46
Slight	19	31	11	12	15	8	14	19
Moderate	42	24	5	12	9	17	16	17
Heavy	11	15	5	8	13	28	10	15
Total	100	100	100	100	100	100	100	100

[a]The student data are from Table 2, where the numbers of references, 0, 1-2, 3-10, and more than 10, are equated with none, slight, moderate, and heavy, respectively. The faculty data are roughly comparable to the student data as (1) 19 departments are included instead of only 15, and (2) the amount of reading by faculty is only roughly approximate, in terms of articles per year, to that used as a scale for the students.

[b]Totals may not add to 100 because of rounding.

TABLE 4

Median Number of Foreign Language References Cited in Student and Faculty Work[a]

Sample	Median Number of Foreign Language References			
	Physical Sciences	Social Sciences	Humanities	All University Total
Students	3	0	0	0
Faculty	4	0	1	0

[a]Source: Appendix Table C. The divisional medians are based upon departmental medians, using only the 14 departments for which comparable data were available.

V. Interpretation of the Results

Our interpretation of the data will be guided by these questions: Is it the case that many dissertations, namely those lacking foreign language references, are not scholarly work? Should there be a uniform Ph. D. foreign language requirement for all students? Should the language requirement be made more rigorous?

To argue that those dissertations which show no evidence of utilization of foreign language skills are not scholarly work would imply that sixty percent of the doctorates at Wisconsin in 1966 were granted inadvisedly. Such a concession cannot be made lightly. Of course, it could be the case that the scholar who demonstrates language competence, as judged by the citations appearing in his dissertation, is a better scholar than his peer who used no foreign literature. On the other hand, since all Ph. D. candidates had passed the language requirement

it can as well be argued that all of them are at least minimally competent in respect to some languages, but that some candidates found it essential to use their language skills while others had no need for them in preparing their dissertations.

But if some mathematicians, some economists, and some English scholars, for example, can write acceptable dissertations without using a single foreign language source, then is it true that "a knowledge of foreign languages is necessary to enable the scholar to undertake research"? It would seem that this premise is only an hypothesis, and an inadequate one at that. Perhaps the hypothesis should read, "A knowledge of some foreign language(s) is necessary to enable some scholars to undertake some kinds of research." But if such knowledge is only necessary for some, should all students be required to satisfy a language requirement?

The evidence suggests that in the diverse fields of graduate study there are varying degrees of need for skill in foreign languages, and that the appropriateness of requiring particular foreign languages ranges from essential to totally inappropriate. Thus we contend that there is no justification for a uniform requirement. Common sense alone would suffice to establish this conclusion. To belabor the obvious, students in different departments do not enter graduate school with identical backgrounds, they do not study the same subject matter, they do not undertake the same kind of research, they do not embark upon identical careers; why then should they all have the same foreign language requirement?

Other studies support the view that if the requirement is justified at all it must be on other grounds than the alleged necessity of using foreign language skills in preparing the Ph. D. dissertation. These studies show that many students do not use the language skills (which they have just demonstrated they possess) in their first major scholarly endeavor.[9] And now it is seen that at Wisconsin 60 percent of the Ph. D. candidates made no use of their foreign language skills in writing their dissertations.

The evidence also supports the contention that the choice of languages, if any, should be up to the student in consultation with his adviser. Certainly French and German are not somehow intrinsically superior to the other languages, and our data (in Table 1) indicate that their utility may be negligible in some fields compared with the utility of other languages. We would extend this argument by urging that if these traditionally favored languages should be caused to give up their privileged status, then neither Spanish nor Swahili nor any other language should usurp that status. If a valid criterion for imposing a language requirement on a student is its usefulness for his intended research, then if, say, Quechua would appear to be most useful, it may

---

[9]At Duke University, for example, it was found that 88 percent of the students writing 270 doctoral dissertations made no reference to titles written in a foreign language. (Weitz, et. al., op. cit.) And at the University of California, "more than 95% of the (100) interviewees said that they could not justify foreign language as an aid in their dissertation research." (Ann Heiss, Berkeley Doctoral Students Appraise Their Academic Programs, Berkeley, April, 1964, p. 28, Mimeographed.)

be required; but the student should not also have to demonstrate proficiency in one or two of the "Big Four" languages without good reason.

It is assumed that most graduate schools will continue to cling to foreign language requirements, inequitable and inefficient as most of them are. A question for many of these graduate schools is, "Should we upgrade our requirement?" Our answer is no, unless the requirement is tailored to the interests of each individual student. If a requirement that is already a kind of "thorn in the flesh" is made more rigorous, any increase in language competence that results is more than matched by student cynicism and disgust. Consider, for example, the case of the University of California (Berkeley) where the vast majority of Ph. D. candidates had to demonstrate reading knowledge of two foreign languages. In surveying a random sample of graduate students in all departments, GASP, the Graduate Association of Students of Psychology, found that: (1) "At least half the respondents consider language study a waste of time," and "at least half the science students approach language study with low motivation best described as simple resentment"; (2) only 21 percent of the students possessed "useful control" of two foreign languages; and (3) the average Ph. D. program was extended by 3.6 months as a direct result of the foreign language requirement.[10] Were this requirement stiffened, one would predict that resentment and the duration of graduate programs would increase at least as much as the proportion of students having "useful control" of two foreign languages.

---

[10]GASP Language Exam Committee, Report, mimeographed working draft, University of California, Berkeley, January 1967.

Our concern is that the foreign language requirement may be unproductive and even counter-productive with reference to academic research. The well-known studies of Berelson[11] and Elder[12] already attest to the limited usefulness of foreign language skills. In addition, two-thirds of the top thirty-one scholars in education and "related fields" recently reported that the foreign languages that they were required to learn were "not particularly useful" to them in their research.[13] The study continued:

> If the case is posited that knowledge of a foreign language is a useful research tool, the data from this study show that that knowledge and utility appeared to serve only an immediate end for most of our subjects; namely, the fulfillment of a graduate program requirement.

One might ask whether these people would have become even more productive scholars had they not been burdened with the foreign language requirement.

It is also instructive to ask, "What costs does a student incur in developing his language competence, and what benefits result from it?" We discussed the economic aspects of language competence at length in our earlier paper; in the present study we are lacking certain kinds

---

[11] Bernard Berelson, Graduate Education in the United States (New York: McGraw-Hill, 1960), pp. 197-198.

[12] J. P. Elder, A Criticism (Cambridge: Harvard University, 1958), pp. 38-39.

[13] Guy T. Buswell, et. al., Training for Educational Research (Center for the Study of Higher Education, University of California, Berkeley, 1966), p. 104.

of information which would allow us to undertake an accurate cost-benefit analysis. However, if we make one not unreasonable assumption -- that the time-patterns of language study for the student sample closely resemble those for the faculty -- it becomes possible to generate some rough estimates.[14]

The cost borne by the student in meeting this requirement averages approximately $3,100, taking into account both direct and indirect or opportunity costs, and based on 1965 data; the bulk of the cost results from the income which is lost because more time is required to complete the degree.[15] By divisions, the costs are about $2,500 for the physical scientists, $3,500 for the social scientists, and $4,400 for the humanists, the differences being attributable to the varying amounts of time invested in language study. These are costs incurred at the graduate level only, and hence understate the real cost to the extent that students studied these same languages in high school or college.

---

[14]The faculty invested, on average, 1/3 to 4/9 of a semester of full-time graduate study per language, or 2/3 to 8/9 of a semester in satisfying the two-language requirement. These data are almost identical with the California data cited on the previous page. The time investment varied by divisions, physical scientists spending only 75 percent of the average amount of time while social scientists and humanists invested 7 percent and 35 percent more time than the average for the whole university.

[15]These figures result when lost income ($3,250) is added to tuition and book expenses ($305) less fellowship support ($455). See Part V of "The Foreign Language Imbroglio in Graduate Education" for details; here, we have used the mid-points of the cost range.

The total cost to the 562 Ph. D.'s at Wisconsin in 1966 was between $1.5 and $2.0 million dollars! And this does not include the cost to the university.[16]

On the benefit side, we have the dissertation references as a measure of the usefulness of one's language training. Obviously there are many other possible benefits, most of which are difficult to assess and which may be relatively insignificant for those persons who do not possess solid, high-level language competence -- which means the majority of Ph. D. candidates. If we assume rather unrealistically that dissertation use represents the first and only use of the Ph. D. foreign language skills, then the implied value of the benefit must be at least equal to the value of the total costs incurred by the average student. This makes foreign language skills a very expensive input to the dissertation!

But even if we assume that the annual use of language references by dissertation writers will over their professional careers approximate that of present faculty members, the implied value of the foreign language references to the dissertation is still rather large. We can estimate the implied minimum value by setting it equal to the income

---

[16]These costs result from the fact that graduate education is very expensive to provide, and that by prolonging the duration of the Ph. D. program, fewer Ph. D.'s can be turned out in any given time period with the staff and facilities available.

that would be received each year on an investment equivalent to the cost of meeting the Ph. D. language requirement. On average, the yearly minimum implied value of the investment in graduate language study amounts to about $155 (or 5 percent of $3,100). If the social scientists and humanists had made only one reference to foreign literature, on average, -- which is not the case -- its implied value to their research would have been $175 and $220, respectively. Since the physical scientists cited three foreign sources, on average, the implied value of each citation is $41, or one-third of the income of $123 which their (cost) investment would generate.

These results lead us to offer the following observations:

(1) For the many Ph. D. candidates who have made negligible use of their reading skills, a "cost-benefit analysis" would lead to the conclusion that paying a specialist to translate the few foreign documents used would have been a much cheaper and wiser use of their resources.

(2) One Ph. D. dissertation does not make an academic career. The time horizon of this study was very short indeed, and we can make only hesitant judgments about the long-run payoff from language training. However, it would seem that for most of those students whose language use was minimal, the long-run payoff will also be minimal, owing to the very short half-life of language competence.

(3) The main effect of a more rigorous requirement, assuming that the interests and needs of most students remain the same, would be to increase the cost of meeting the requirement without substantially affecting the benefits produced by it.

VI. Concluding Comments

It should be kept in mind that the issue which stimulated the writing of this paper, and its earlier companion piece, is not whether language skills are valuable or whether the pursuit of these skills should be encouraged; indeed, both of these propositions are virtually axiomatic. The issue is whether the graduate foreign language requirement is equitable and efficient. Our data indicate that the requirement is neither, that it penalizes those who have no great need of language skills in their teaching and research by forcing them to invest their time in the study of languages which they do not wish to learn and which they will not learn well enough to utilize. Language study must compete for time with every other kind of study, being only one desideratum among many. We agree with the 17th Century writer who believed:[17]

> L'on ne peut guere charger l'enfance de la connaissance de trop de langues, et il me semble que l'on devrait mettre toute son application a l'en instruire. ... Si l'on remet cette etude si penible a un age un peu plus avance, et qu'on appelle la jennesse, ou l'on n'a pas la force de l'embrasser par choix, ou l'on n'a pas celle d'y perseverer; et si l'on y persevere, c'est consumer a la recherche des langues le meme temps qui est consacre a l'usage que l'on en doit faire. ... Un si grand fonds ne se peut bien faire que lorsque tout s'imprime dans l'ame naturellement et profondement; que la memoire est neuve, prompte et fidele; que l'esprit et le coeur sont encore vides de passions, de soins et de desirs ...

---

[17] It is scarcely possible to burden childhood with the knowledge of too many languages, and it seems to me that one ought to strive fully to teach them to children. ... If this study is delayed to the more advanced age which we call youth, it becomes arduous, and either the student does not have the determination to elect it as a matter of choice, or he lacks the persistence to continue it. If he does continue it, he is devoting to the acquisition of a language the very time which ought to be devoted to the practical application of it. ... Such an important acquisition can properly be made only when everything is imprinted upon the mind naturally and deeply; when the memory is fresh, quick, and retentive; when the spirit and the heart are still free of passions, worries, and desires ... Jean de La Bruyere, Les Caracteres, (Lausanne: Editions Rencontre, 1963), p. 340.

Surely one can argue that a graduate student might be limiting his career and research possibilities by neglecting to learn, say, French. But no matter how many languages a student learns, his career and research possibilities are limited; and since life is also limited, the more time one spends learning languages, the less time he leaves for other pursuits. One might simply ask whether the student, as an adult, should not be free to pursue his interests and, in consultation with his adviser, decide which skills he should acquire, and which skills he may have to do without, based upon his knowledge of himself and the discipline he is committed to? He, after all, must do the work for his degree, not the faculty and deans who set and administer the requirements, and it is his future that is at stake. To place arbitrary requirements in his path, like so many hurdles, may generate devastating consequences; as one critic of the language requirement has observed, "Given enough intellectual integrity and independence, he may quit the program altogether. Worse yet, given enough cynicism and conformity, he may capitulate, bear the psychological burden, and pass it on to his own students."[18]

It does seem that faculty are turning out graduate students in their own image, imposing a language requirement on them which many faculty were loath to pass in their own student days. As William R. Parker,

---

[18]Herbert Walberg, letter, Science, 153 (December 30, 1966), p. 1603.

long-time executive secretary of the MLA, put it:[19]

> There is your friend and mine, Professor X, Ph. D., who never really learned a foreign language but has managed, nevertheless, to publish two monographs and two dozen articles and hence become known as a specialist in his field. Now ignorance loves company, and so Professor X has steadily been propagating young monoglots, some of whom have also become successful.

But the very success of the monoglot professors has led many departments to become unconcerned with the substance of their own requirements, and the students have been quick to perceive this. This nonchalance has turned the language requirement into a kind of vestigial organ whose presence reminds us of the function it once may have performed. Perhaps it should be made vital again, so that over a period of time the whole academic profession, both "apprentices" and "practitioners," will voraciously devour foreign literature.

Our evidence suggests, however, that no such result would follow, for, among other reasons, not all academicians are pursuing lines of research which necessitate frequent reading of foreign material. The age of specialization has arrived and, regrettably, one of the prices that had to be paid was the demise of the ancient credo that all scholars must acquire a "culture generale." In short, the knowledge explosion, and the accompanying expansion of the upper reaches of academia, has forced the development of cadres of scholars having more diverse types of skills. Accordingly, the "rites de passage" into the worlds of scholarship must be appropriately modified.

---

[19]William R. Parker, "Foreign Languages and Graduate Study," Journal of Proceedings and Addresses of the Fifty-Fourth Annual Conference of the Association of American Universities and the Fifth Annual Conference of the Association of Graduate Schools, 1953, p. 24.

TABLE A

Distribution of Dissertation References by Languages, for Departments

Divisions and Departments	References Per Language							Total All References
	French	German	Russian	Spanish	Other[a]	Total Foreign Language	English	
Physical Sciences								
Biochemistry	2	15	0	0	3	20	684	704
Civil Engineering	3	28	0	0	1	32	220	252
Genetics	4	6	0	0	0	10	353	363
Mathematics	15	8	0	0	0	23	253	276
Zoology	45	85	0	1	2	133	523	656
Total	69	142	0	1	6	218	2,033	2,251
Social Sciences								
Agricultural Economics	1	0	0	0	0	1	680	681
Curriculum and Instruction	12	25	0	0	1	38	510	548
Economics	21	0	0	0	4	25	1,128	1,153
Educational Policy Studies	2	0	0	0	0	2	870	872
Political Science	0	0	0	66	0	66	555	621
Psychology	1	0	0	0	0	1	390	391
Sociology	0	1	0	0	0	1	593	594
Total	37	26	0	66	5	134	4,726	4,860
Humanities								
History	50	7	198	189	132	576	3,621	4,197
U. S.	1	0	0	0	0	1	3,049	3,050
Non-U. S.	49	7	198	189	132	575	572	1,147
Speech	0	0	0	0	0	0	836	836
English	21	12	0	1	9	43	2,722	2,765
Total	71	19	198	190	141	619	7,179	7,798
All-University Total	177	187	198	257	152	971	13,938	14,909

[a]Luganda (86), Latin (23), Italian (17), Persian (16), Scandinavian languages (5), Urdu (4), Portuguese (1).

[b]Rounded-off to two significant figures.

TABLE A

Distribution of Dissertation References by Languages, for Departments

References Per Language							Summary			
French	German	Russian	Spanish	Other[a]	Total Foreign Language	English	Total All References	No. of Dissertations	Avg. No. of References	Avg. % Foreign Language References
2	15	0	0	3	20	684	704	9	78	2.8
3	28	0	0	1	32	220	252	4	63	13.0
4	6	0	0	0	10	353	363	4	91	2.8
15	8	0	0	0	23	253	276	12	23	8.3
45	85	0	1	2	133	523	656	7	94	20.0
69	142	0	1	6	218	2,033	2,251	36	63	9.7
1	0	0	0	0	1	680	681	8	85	0.1
12	25	0	0	1	38	510	543	10	55	6.9
21	0	0	0	4	25	1,128	1,153	14	82	2.2
2	0	0	0	0	2	870	872	4	220	0.2
0	0	0	66	0	66	555	621	4	160	11.0
1	0	0	0	0	1	390	391	10	39	0.3
0	1	0	0	0	1	593	594	7	85	0.2
37	26	0	66	5	134	4,726	4,860	57	85	2.8
50	7	198	189	132	576	3,621	4,197	21	200	14.0
1	0	0	0	0	1	3,049	3,050	14	220	0.0
49	7	198	189	132	575	572	1,147	7	160	50.0
0	0	0	0	0	0	836	836	7	120	0.0
21	12	0	1	9	43	2,722	2,765	26	110	1.6
71	19	198	190	141	619	7,179	7,798	54	140	7.9
177	187	198	257	152	971	13,938	14,909	147	100	6.5

ian (16), Scandinavian languages (5), Urdu (4), Portuguese (1).

TABLE B

Distribution of Dissertation Authors by Numbers of Foreign Language References Cited, for Departments

Divisions and Departments	Number of Authors	Number of Foreign Language References Cited per Author				Percent of Authors Citing 3 or More Foreign Sources
		0	1-2	3-10	11+	
Physical Sciences						
Biochemistry	9	2	2	5	0	56
Civil Engineering	4	0	1	1	2	75
Genetics	4	2	0	2	0	50
Mathematics	12	6	1	5	0	42
Zoology	7	0	3	2	2	57
Total	36	10	7	15	4	53
Social Sciences						
Agricultural Economics	8	7	1	0	0	0
Curriculum and Instruction	10	8	1	0	1	10
Economics	14	10	0	3	1	29
Educational Policy Studies	4	2	2	0	0	0
Political Science	4	3	0	0	1	25
Psychology	10	9	1	0	0	0
Sociology	7	6	1	0	0	0
Total	57	45	6	3	3	10
Humanities						
History	21	13	1	0	7	33
(U. S.)	(14)	(13)	(1)	(0)	(0)	(0)
(Non-U. S.)	(7)	(0)	(0)	(0)	(7)	(100)
Speech	7	7	0	0	0	0
English	26	14	7	5	0	19
Total	54	34	8	5	7	22
All-University Total	147	89	21	23	14	25

TABLE C

Median Number of Foreign Language References Cited in Student and Faculty Work, by Departments[a]

Division and Department	Students	Faculty
Physical Sciences		
Biochemistry	3	3
Chemistry	NA	3
Civil Engineering	10	1
Nuclear Engineering	NA	0
Genetics	2	4
Mathematics	1	6
Physics	NA	0
Zoology	5	8
Divisional Median	3	3
Social Sciences		
Agricultural Economics	0	0
Curriculum and Instruction	0	0
Economics	0	0
Educational Policy Studies	1	0
Political Science	0	0
Psychology	0	0
Sociology	0	0
Divisional Median	0	0
Humanities		
Art History	NA	22
English	0	NA
History	0	2
(U. S.)	(0)	(NA)
(Non-U. S.)	(10)	(NA)
Philosophy	NA	4
Speech	0	0
Divisional Median	0	3
All-University Median	0	0

[a]The faculty figures are one-third of the median numbers of foreign language references cited in faculty writings during the past three years. The student figures are the median numbers of foreign language references found in their dissertations. Divisional medians are based upon departmental medians.

A Selected Bibliography on the Graduate Foreign Language Requirement[a]

Prepared by Robert H. Graham[b]

I. Studies of the Graduate Foreign Language Requirement, 1929-1968

A. Studies Written Before 1950

Betts, G. H., "Language Requirements for Doctors of Philosophy." School and Society, 31 (1930), 343-46.

_____, and R. A. Kent. Foreign Language Equipment of 2,325 Doctors of Philosophy. Bloomington, Illinois: Public School Publishing Co., 1929.

Dvorak, August. "The Prevalence and Utility of the Modern Foreign Language Requirements for the Master's and Doctor of Philosophy Degrees," in E. W. Bagster-Collins, O. Werner, C. Woody, et. al., Studies in Modern Language Teaching. New York: The Macmillan Co., 1930.

Fuchs, Gustave O., Standards and Practices in Administering the Modern Language Requirement for the Degree of Doctor of Philosophy. Ph. D. thesis, University of Nebraska, 1932.

Stalnaker, J. M., "The Language Requirements of Graduate Schools." Journal of Proceedings and Addresses of the 36th Annual Conference of the Association of American Universities, (1934), 45-57.

Woody, Clifford. "Language Requirements for the Doctor's Degree." Journal of Higher Education, 19 (February, 1948), 75-86, 107.

Young, C. E., "Language Requirements for Doctors of Philosophy." School and Society, 31 (1930), 509-10.

---

[a]Starred items (*) are especially useful.

[b]Department of Educational Policy Studies, University of Wisconsin.

B. Studies Written Between 1950 and 1960

Elder, J. P., A Criticism of the Graduate School of Arts and Sciences at Harvard University and Radcliffe College. Cambridge, Mass.: Harvard University Press, 1958.

Hemenway, C. L., and H. E. Way. "Foreign Language Requirements for the Ph. D. in Physics." American Journal of Physics, 27 (October, 1959), 525.

Locke, W. N., "Effective Preparation for Graduate Language Requirements." Modern Language Journal, 34 (1950), 532.

McCloy, C. H., "Do Educators Need Foreign Languages?" Modern Language Journal, 39 (1955), 77-78.

_____. "A Letter to the Dean of the Graduate College." Modern Language Journal, 42 (January, 1958), 45-46.

Marchand, James W., "Teaching, Testing, and the Ph. D. Language Requirements." Modern Language Journal, 42 (May, 1958), 238-43.

Nock, Francis J., "Foreign Languages as a Graduate Study Requirement," Modern Language Journal, 43 (March, 1959), 129-33.

Also in College and University, 33 (Winter, 1958), 154-62.

Parker, William R., "Foreign Languages and Graduate Study." Journal of Proceedings and Addresses of the Fifty-Fourth Annual Conference of the Association of American Universities and the Fifth Annual Conference of the Association of Graduate Schools, (1953), 22-31.

* _____. The National Interest and Foreign Languages. Washington, D. C.: Department of State Publication 7324, 1954, revised 1957 and 1961.

Piel, Sara E., "Qualifying Tests in Modern Languages for the Doctor's Degree." The German Quarterly, 24 (March, 1951), 109-13.

Speer, David G., "For Standardized Graduate Language Requirements." Modern Language Journal, 41 (October, 1957), 292-93.

"Symposium." Colorado Quarterly, 5 (Spring, 1957), 426-40.

Viens, Claude P. and Philip Wadsworth. "Foreign Language Entrance and Degree Requirements for the M.A., M.S., and Ph.D. Degrees." Publications of the Modern Language Association of America, 72 (September, 1957), 22-32.

White, Lucien. "What's Wrong with the Ph. D. Language Requirement?" Journal of Higher Education, 25 (March, 1954), 150-52, 172.

C. Studies Written Between 1960 and 1968

Admussen, Richard L., "Trends in the Ph. D. Language Requirement." Modern Language Journal, 51 (October, 1967), 346-49.

* Berelson, Bernard. Graduate Education in the United States. New York: McGraw-Hill, 1960.

Buswell, Guy T., et. al., Training for Educational Research. Berkeley, Calif.: Center for the Study of Higher Education, 1966.

Graduate Association of Students of Psychology, Language Exam Committee, "Report." University of California, Berkeley, January, 1967. (Mimeographed working draft.)

Hansen, W. Lee. "Report on the Foreign Language Knowledge Survey." Madison, Wisconsin, September, 1966. (Mimeographed.)

Prepared for the Department of Economics, University of Wisconsin.

* _____, and Robert H. Graham. "The Foreign Language Imbroglio in Graduate Education." Madison, Wisconsin, August, 1968. (Mimeographed.)

Heiss, Ann. Berkeley Doctoral Students Appraise Their Academic Programs. Berkeley, Calif.: Center for Research and Development in Higher Education, 1964. (Mimeographed.)

Knox, John B., "The Language Requirement for the Doctorate." Journal of Higher Education, 31 (October, 1960), 396-99.

"Letters to the Editor." Science, 153 (September 30, 1966), 1595; 154 (November 25, 1966), 962; 154 (December 30, 1966), 1603; 155 (March 24, 1967), 1492.

Locke, William N., "Letter to the Editor." Journal of Higher Education, 35 (June, 1964), 342-43.

Milnes, Arthur G., "Should Foreign Language Proficiency Be Required of Ph. D. Candidates?" Engineering Education, (March, 1967).

Parker, William R., The Language Curtain and Other Essays on American Education. New York: Modern Language Association of America, 1966.
Available from MLA as Number A40.

* Prior, Moody. "The Doctor of Philosophy Degree," in Everett Walters, Editor, Graduate Education Today. Washington, D. C.: American Council on Education, 1965.

Publications of Interest to Teachers of Foreign Languages. New York: Materials Center, Modern Language Association of America and American Council on the Teaching of Foreign Languages, (1968).
This pamphlet, as well as materials in this bibliography noted as available from the MLA, may be acquired by writing to: Materials Center
MLA-ACTFL
62 Fifth Avenue
New York, New York 10011

* Rosenzweig, Saul, Marion E. Bunch, and John A. Stern. "Operation Babel: A Survey of the Effectiveness of the Foreign Language Requirements for the Ph. D. Degree in Psychology." American Psychologist, 17 (May, 1962), 237-43.

Smith, Eldon D., "Foreign Language Requirements in Ph. D. Programs in Agricultural Economics." Journal of Farm Economics, 47 (August, 1965), 529-41.

* Weitz, Henry, Robert Ballantyne, and Robert Colver. "Foreign-Language Fluency, The Ornament of a Scholar." Journal of Higher Education, 34 (November, 1963), 443-49.

II. Material Useful for an Understanding of the Requirement in the Context of American Education

A. Graduate School Programs and Criticisms .

Journal of Proceedings and Addresses of the . . Annual Conference of the Association of Graduate Schools in the Association of American Universities, 1960-date.

This journal is quite valuable for a perspective of the graduate school deans on the foreign language question. See the various reports, especially: "Report of the Committee on Graduate Work." 1949, 1951; "Report of the

Committee on Expediting the Ph. D." 1964; "Report of the Committee on Policies in Graduate Education." 1952, 1955, 1956; "Report of the Committee on Testing." 1960, 1962, 1965, 1966.

The title of this journal from 1949-1959 was: Journal of Proceedings and Addresses of the . . Annual Conference of the Association of American Universities and . . Annual Conference of the Association of Graduate Schools.

Cartter, Allan M., An Assessment of the Quality of Graduate Education. Washington, D. C.: American Council on Education, 1966.

Davis, James A., Great Aspirations; the Graduate School Plans of America's College Seniors. Chicago: Aldine Publishing Co., 1964.

Flexner, Abraham. "Failings of Our Graduate Schools." Atlantic Monthly, April, 1932.

Heiss, Ann M., Anne Davis, and Frank Voci. Graduate and Professional Education: An Annotated Bibliography. Berkeley, Calif.: Center for Research and Development in Higher Education, 1967.

Hollis, Ernest V., Toward Improving Ph. D. Programs. Washington, D. C.: American Council on Education, 1945.

Hunter, J. Scott. The Academic and Financial Status of Graduate Students, Spring 1965. Washington, D. C.: National Center for Educational Statistics, Office of Education, 1967.

Jencks; Christopher and David Reisman. The Academic Revolution. New York: Doubleday, 1968.

See especially Chapter 12, "Reforming the Graduate Schools."

Livesey, Herbert B. and Gene A. Robbins. Guide to American Graduate Schools. New York: Viking, 1967.

Turner, Daymond. "New Graduate Programs in Modern Foreign Languages." Journal of Higher Education, 37 (May, 1966), 241-45.

Wilson, James S., "Some Aims of Graduate Study in the Humanities." Proceedings of the Second Annual Conference of the Association of Graduate Schools, (1950), 9-13.

B. Language Requirements and Enrollments in Modern Foreign Languages in Colleges and Secondary Schools

Bird, Thomas E., Editor. Foreign Languages: Reading, Literature, Requirements. Northeast Conference, 1967.
Includes John F. Gummere, "Trends in Foreign Language Requirements and Placements." Available from MLA as Number NEC 67.

Eshelman, James N., "Secondary School Foreign Language Enrollments and Offerings, 1958-62." Publications of the Modern Language Association, 79 (September, 1964), Number 4, Part 2, 107-12.

"Foreign Language Entrance and Degree Requirements." Publications of the Modern Language Association, 71 (September, 1956), Part 2, 49-70.

Herslow, Nina Greer, and James F. Dershem. *Foreign Language* Enrollments in Institutions of Higher Education, Fall 1965. New York: Modern Language Association, 1966.
Available from MLA as Number H30.

Lund, Gladys A. and Nina Greer Herslow. Foreign Language Entrance and Degree Requirements in U. S. Institutions of Higher Education, 1966. New York: Modern Language Association, 1966.
Available from MLA as Number H40.

Parker, William R., "Why a Foreign Language Requirement?" Publications of the Modern Language Association, 72 (April, 1957), 1-12.
Reprinted in W. R. Parker, The Language Curtain and Other Essays on American Education, q.v.

Plottel, Jeanine P., "Foreign Language Entrance and Degree Requirements for the B. A. Degree in Accredited Colleges and Universities." Publications of the Modern Language Association, 75 (September, 1960), Number 4, Part 2, 14-28.

Rütimann, Hans, and Caroline Teague. Sequences in Modern Foreign Languages Completed by Graduates of U. S. High Schools in June 1966. New York: Modern Language Association, 1967.
Available from MLA as Number H25.

Teague, Caroline, and Hans Rütimann. Foreign Language Enrollments in Public Secondary Schools, Fall 1965. New York: Modern Language Association, 1967.
Available from MLA as Number H21.

C. Miscellaneous Materials

American Translators Association Professional Services Directory, 1965. New York: American Translators Association, 1965.

Benton, William. "English Spoken: Here, There, Everywhere." Think, January-February, 1967, pp. 19-23.

Bree, Germaine. "The Double Responsibility of the Foreign Language Teacher: Proficiency in the Language and Mastery of the Literature and Culture." Publications of the Modern Language Association, 78 (May, 1963), 6-10.

_____, Editor. Culture, Literature, and Articulation. Northeast Conference, 1955.
Available from MLA as Number NEC 55.

Coleman, A., An Analytical Bibliography of Modern Language Teaching, 1932-1937. Chicago: The University of Chicago Press, 1938.

Doyle, Henry Grattan. "The Modern Foreign Languages: A Chronicle of Achievement." Modern Language Journal, 40 (1956), 269-96.

Heumann, K. F. and P. M. Bernays. "Fifty Foreign Languages at Chemical Abstracts." Journal of Chemical Education, 36 (October, 1959), 478-82.

Hohlfeld, A. R., "German in the O'Shea Report." Modern Language Journal, 12 (December, 1927), 215-16.

Kyriak, Thomas E., Editor. Bibliography-Index to U. S. JPRS Research Translations. 5 (July 1966-June 1967), Number 7, Washington, D. C.: Research and Microfilm Publications, Inc.

La Bruyere, Jean de. Les Caracteres. Lausanne: Editions Rencontre, 1963.

Lagier, James. "Where Uncle Sam Trains Fast Talkers." Milwaukee Journal, September 24, 1967.
U. S. Army Language Training School.

Leavitt, Sturgis E., The Teaching of Spanish in the United States. New York: Modern Language Association, 1961.
Available from MLA as Number A240.

MacEoin, Gary. "The Cultural Need of Foreign Language Competence." Modern Language Journal, 43 (May, 1959), 211-17.

Modern Language Association Foreign Language Program Steering Committee. "F(oreign) L(anguage) Program Policy." Publications of the Modern Language Association, 71 (September, 1956), Part 2, xiii-xxiv.

National Science Foundation. "Foreign-Language Proficiency of Scientists Reporting to the National Register of Scientific and Teaching Personnel, 1960: A Preliminary Report." Scientific Manpower Bulletin, (November, 1961), Number 16, NSF-61-72.

Ong, Walter J., S. J., "Latin Language Study as a Renaissance Puberty Rite." Studies in Philology, 56 (April, 1959), 103-24.

O'Shea, Michael V., The Reading of Modern Foreign Languages. Washington, D. C.: United States Department of the Interior, Bureau of Education Bulletin, 1927, Number 16.

Pei, Mario. How to Learn Languages and What Languages to Learn. New York: Harper and Row, 1966.

Schoepfle, G. K., "Foreign Languages for the Physics Student." American Journal of Physics, 18 (October, 1950), 464-65.

Tierney, Hannelore, Gladys A. Lund, and Marjorie N. Ball. Manpower in the Neglected Languages, Fall 1963. New York: Modern Language Association.
Available from MLA as Number H95.

Vitaliano, Dorothy B., "Geologists versus the Foreign Literature." Journal of Geological Education, 9 (Fall, 1961), 74-78.

Walsh, Donald D., "Advice to the Language Learner." Modern Language Journal, 50 (May, 1966), 260-63.
Available from MLA as Number A20.

Watts, George B., "The Teaching of French in the United States: A History." French Review, 37 (October, 1963), 1-165.
Available from MLA as Number A250.

Zeydel, Edwin H., The Teaching of German in the United States from Colonial Times to the Present. New York: Modern Language Association, 1961. Also in German Quarterly, 37 (September, 1964), 315-92.
Available from MLA as Number A230.